

c l a i m s

1. A method of controlling drilling fluid pressure during drilling offshore, where drilling fluid is pumped down into a borehole (15) and then flows back to a drilling rig (1) via the lined and/or unlined sections of the borehole (15) and a liner (14), and where the drilling fluid pressure is controlled by pumping drilling fluid out of the liner (14) near the seabed, characterized in that the annulus (30) of the liner (14) above the drilling fluid is filled with a riser fluid having a density which is lower than that of the drilling fluid.
2. A method in accordance with Claim 1, characterized in that the volume of riser fluid flowing into and out of the annulus (30) is monitored.
3. A method in accordance with Claim 2, characterized in that the volume of drilling fluid and riser fluid flowing into and out of the annulus (30) is compared with the drilling fluid volume being introduced into the borehole (15) via a drill string (16).
4. A device for controlling drilling fluid pressure during drilling offshore, where drilling fluid is pumped down into a borehole (15) and then flows back to a drilling rig (1) via the lined and/or unlined sections of the borehole (15) and a liner (14), and where the drilling fluid pressure is controlled by pumping drilling fluid out of the liner (14) near the seabed, characterized in that the annulus (30) of the liner (14) above the drilling fluid is filled with a

riser fluid having a density which is lower than that of the drilling fluid.

5. A device in accordance with Claim 4, characterized in that the annulus (30) communicates with a tank (26) on the drilling rig (1) by means of a connecting pipe (28), the connecting pipe (28) being fitted with volume measuring equipment.